## REMARKS

This amendment is submitted in response to the Notice of Non-Compliant Amendment dated September 13, 2005, all claims now have proper identifiers, and this amendment is otherwise a resubmission of the amendment filed September 6, 2005. Claims 21, 31, 33, 36, 38, and 44 have been amended. Claims 1-34, 36-39, and 44 are pending in the application. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

Applicant gratefully acknowledges the allowability of claims 1-30, 33, and 38.

Claims 21, 31, 33, 36, 38, and 44 have been amended to correct typographical errors and are accordingly in condition for allowance.

Claim 31-32, 34, 36-37 and 39 stand rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. (U.S. Patent No. 6,864,820). This rejection is respectfully traversed.

Claims 31 and 36 recite, *inter alia*, a method for converting an analog signal to a digital word, comprising "measuring a magnitude of said analog signal; if said magnitude is not greater than a predetermined threshold, mapping said magnitude to a digital word exclusively with a first transfer function; and if said magnitude is at least equal to said predetermined threshold, mapping said magnitude to the digital word exclusively with second transfer function" (emphasis added). Nakamura et al. does not disclose this limitation.

Nakamura et al. discloses "Code mapper 147 processes the below-range codes by mapping the codes to the partial transfer function of FIG. 16B [which] maps those codes falling below the nominal input range of ADC 133, which is below -1V ....

Similarly, code mapper 149 processes the above-range codes by mapping the codes to the partial transfer function of FIG. 16C ... [which] maps those codes falling above the nominal input range of ADC 133, which is above +1V .... Offset corrector 151 corrects for quantization errors of the input 137, and processed the codes within the nominal input range by mapping the codes to the transfer function of FIG. 16D ... [which] maps those codes falling within the nominal input range of the ADC 133, which is between -1V and +1V." Col. 7, ln. 53-67. The second transfer function is not used exclusively if the magnitude is at least equal to a predetermined threshold. Nakamura et al. uses a second and a third transfer function when the code is above the first. Since Nakamura et al. does not disclose all the limitations of claims 31 and 36, claims 31 and 36 are not anticipated by Nakamura et al.

Claims 32 and 34 depend from claim 31 and are patentable at least for the reasons mentioned above. Claims 37 and 39 depend from claim 36 and are patentable at least for the reasons mentioned above. Applicant respectfully requests that the 35 U.S.C. § 102(e) rejection of claims 31-32, 34, 36-37, and 39 be withdrawn.

Claim 44 stands rejected under 35 U.S.C. 102(e) as being anticipated by Tarnoff (U.S. Patent No. 6,829,012). This rejection is respectfully traversed.

Claim 44 recites, inter alia, "an analog to digital (A/D) converter circuit that receives analog signals from the pixel array and converts the analog signals to digital signals with a variable level of quantization, said A/D converter circuit comprising, a linear A/D converter, for producing intermediate values from said analog signals, and a processing circuit that remaps value said intermediate values produced by said linear A/D converter using a mapping table."

Tarnoff discloses a high speed telecine device. Fig. 5 illustrates that the telecine device includes red, green, and blue sensors which output to respective fixed 12-bit analog-to-digital converters, which produce 12-bit color pixel values for each of the red, green, and blue channels. Accordingly, Tarnoff does not implement any type of variable level of quantization. Tarnoff in fact uses a fixed 12-bit quantization. Although the Examiner takes the position that the red level, blue level, and green level are variable, the quantization of those levels is not variable, but is restricted to a 12-bit number for each color.

Claims 31, 36 and 44 are therefore believed to be allowable. The dependent claims, i.e., claims 32, 34, 37, and 39 are also believed to be allowable for at least the same reasons as the independent claims.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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